AMENDMENTS TO THE CLAIMS

1. (Currently amended) A substrate processing apparatus, comprising:

a reaction container to process a plurality of substrates;

a heater to heat said plurality of substrates; and

a plurality of nozzles having different lengths through which reaction gas is to be supplied into said reaction container, wherein

each of said plurality of nozzles includes a horizontal portion extending in a horizontal direction and a vertical portion rising in a vertical direction,

said horizontal portion is attached to a sidewall of said reaction container with said horizontal portion penetrating the sidewall of said reaction container,

said vertical portion is disposed in said reaction container apart from an inner wall of said reaction container such that a portion of the vertical portion is opposed to said heater,

a flow-path cross-sectional area of the portion of said vertical portion that is opposed to at least said heater is greater than a flow-path cross-sectional area of said horizontal portion, and

a flow-path cross-sectional shape of the portion of said vertical portion that is opposed to at least said heater is formed into a substantially elliptic shape with a short axis thereof oriented toward a central portion of the substrate ~~shape in which a width in a direction of a straight line connecting a center of the substrate and a center of the vertical portion with each other is smaller than a width in a direction perpendicular to the straight line direction~~.

2. (Canceled)

3. (Currently amended) A substrate processing apparatus as recited in claim 1 ~~2~~, wherein said cross-sectional shape of the horizontal portion of said nozzle is formed into a circular shape.

4. (Canceled)

5-11. (Canceled)

12. (Previously presented) A substrate processing apparatus as recited in claim 1, wherein said heater is divided into a plurality of heater zones, and when said substrate is processed, temperatures in the reaction container corresponding to the respective heater zones are maintained at the same temperatures.

13-14. (Canceled)

15. (Currently amended) A producing method of a semiconductor device, comprising:

transferring a plurality of substrates into a reaction container;

processing the plurality of substrates by supplying reaction gas into the reaction container heated by a heater through a plurality of nozzles having different lengths, each of said plurality of nozzles having a horizontal portion extending in a horizontal direction and a vertical portion rising in a vertical direction, said horizontal portion being attached to a sidewall of said reaction container such that the horizontal portion penetrates the sidewall of the reaction container, said vertical portion being disposed in said reaction container apart from an inner wall of said reaction container such that a portion of the vertical portion is opposed to said heater disposed to heat the plurality of the substrates, a flow-path cross-sectional area of the portion of the vertical portion opposed to at least the heater being greater than a flow-path cross-sectional area of the horizontal portion, ~~and~~ a flow-path cross-sectional shape of the portion of said vertical portion that is opposed to at least said heater being formed into a substantially elliptic shape with a short axis thereof oriented toward a central portion of the substrate ~~shape in which a width of the portion of said vertical portion in a direction of a straight line connecting a center of the substrate and a center of the vertical portion with each other is smaller than a width of the portion of the vertical portion in a direction perpendicular to the straight line direction~~; and

transferring the processed plurality of substrates out from the reaction container.

16. (Currently amended) A substrate processing apparatus, comprising:

a reaction container to process a plurality of substrates;

a heater to heat the plurality of substrates; and

a first nozzle and at least one second nozzle to supply reaction gas into the reaction container, wherein

the first nozzle is attached to a sidewall of said reaction container with said first nozzle penetrating the sidewall of said reaction container and is disposed in the reaction container such that the first nozzle is not opposed to the heater,

the at least one second nozzle comprises a plurality of nozzles having different lengths,

each of the plurality of nozzles includes a horizontal portion extending in a horizontal direction and a vertical portion rising in a vertical direction,

said horizontal portion is attached to a sidewall of said reaction container with said horizontal portion penetrating the sidewall of said reaction container,

said vertical portion is disposed in the reaction container apart from an inner wall of said reaction container such that a portion of the vertical portion is opposed to the heater,

a flow-path cross-sectional area of the portion of the vertical portion that is opposed to at least the heater is greater than a flow-path cross-sectional area of the horizontal portion and a flow-path cross-sectional area of the first nozzle, and

a flow-path cross-sectional shape of the portion of said vertical portion that is opposed to at least said heater is formed into a substantially elliptic shape with a short axis thereof oriented toward a central portion of the substrate ~~shape in which a width in a direction of a straight line connecting a center of the substrate and a center of the vertical portion with each other is smaller than a width in a direction perpendicular to the straight line direction~~.

17-18. (Canceled)

19. (Currently amended) A producing method of a semiconductor device, comprising:

loading at least one substrate into a reaction container;

processing the at least one substrate by supplying reaction gas into the reaction container heated by a heater through a first nozzle, and a second nozzle,

the first nozzle being attached to a sidewall of said reaction container with said first nozzle penetrating the sidewall of said reaction container and being disposed in the reaction container such that the first nozzle is not opposed to the heater,

the second nozzle comprising a plurality of nozzles having different lengths,

each of the plurality of nozzles including a horizontal portion extending in a horizontal direction and a vertical portion rising in a vertical direction,

said horizontal portion being attached to a sidewall of said reaction container with said horizontal portion penetrating the sidewall of said reaction container,

said vertical portion being disposed in the reaction container apart from an inner wall of said reaction container such that a portion of the vertical portion is opposed to the heater,

a flow-path cross-sectional area of the portion of the vertical portion that is opposed to at least the heater being greater than a flow-path cross-sectional area of the horizontal portion and a flow-path cross-sectional area of the first nozzle, ~~and~~

a flow-path cross-sectional shape of the portion of said vertical portion that is opposed to at least said heater being formed into a substantially elliptic shape with a short axis thereof oriented toward a central portion of the substrate

~~shape in which a width in a direction of a straight line connecting a center of the substrate and a center of the vertical portion with each other is smaller than a width in a direction perpendicular to the straight line direction; and~~

~~connecting a center of the substrate and a center of the vertical portion with each other is smaller than a width in a direction perpendicular to the straight line direction~~; and

unloading the at least one substrate from the reaction container after the processing.

20. (Canceled)